

SAFETY HEALTH AND ENVIRONMENT IN UNIVERSITY MALAYSIA PAHANG

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SUPERVISOR'S DECLARATION

We hereby declare that we have checked this project and in our opinion this project is satisfactory in terms of scope and quality for the award of the degree of Bachelor of Mechanical Engineering.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged. The thesis has not been accepted for any degree and is not concurrently submitted for award of other degree.

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Dedicated to my beloved parents, family and friends
Thank you for the endless support and encouragement.

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ABSTRACT

The Occupational Safety and Health Act (OSHA) 1994 were introduced in an effort to secure the safety, health and welfare of persons at work against risks to safety or health arising out of the activities of persons. According to OSHA 1994, it is the duty of every employer to ensure, as far as is practicable, the safety, health and welfare at work of all his employees. A study was conducted to investigate the organization of OSHA in UMP to make sure it complied with this act. Some interview with person conduct about the organization was done. And the result showed about organization and table of items organization applied this act with organization. The organization needs some improvement to make sure it complied with act. There are many ways to improve as commitment, employees' involvement, and OSH training and education is the important keys to the success.

ABSTRAK

Akta Keselamatan dan Kesihatan 1994 (OSHA) diperkenalkan untuk memastikan keselamatan, kesihatan dan kebajikan individu-individu yang menjalankan kerja terjamin dan terlindung risiko-risiko atau bahaya yang wujud akibat daripada aktiviti individu tersebut. Berdasarkan OSHA, adalah kewajipan setiap majikan untuk menjamin seboleh yang mungkin, keselamatan, kesihatan dan kebajikan semasa kerja bgai semua pekerjanya. Satu kajian telah dijalankan untuk mengkaji tentang struktur organisasi pentadbiran di UMP adalah berdasarkan akta OSHA 1994. Temuramah bersama staf yang terlibat dengan struktur organisasi ini telah dibuat. Dan keputusan yang didapati menunjukkan tentang organisasi tersebut dan jadual yang menyatakan ianya mengikut akta OSHA 1994 tersebut. Organisasi ini memerlukan lebih banyak peningkatan untuk memastikan ianya mematuhi undang-undang OSHA 1994. Terdapat banyak cara untuk memastikan perkara ini sebagai contoh penglibatan oleh pekerja-pekerja dan latihan serta pendidikan keselamatan dan kesihatan pekerjaan(OSH) merupakan factor penting bagi menjayakan organisasi ini.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This project will discuss about OSH 1994. This will discuss on how OSH practice in UMP and laboratory. As we all know that our country has this act and apply in all industries in our country.

Occupational safety and health (OSH) is a basic human right every person is entitled to, independent of race, sex or religion. Indeed, it constitutes one of the highest ethical values on earth. It has been already confirmed by numerous conventions and declarations of UN organizations, i.e. WHO and ILO, and it still remains of utmost importance for well-being of mankind.

Occupational Safety and Health (OSH) at work is an issue affecting all businesses. OSH is a major issue for companies mainly due to the fear of prosecution. With better enforcement of the legislation and commitment from employers and employees, construction safety has received greater attention. Consequently, the improvement of safety and health in construction is a necessary goal for all participants in the construction process. Besides that, safer workplaces will help to improve productivity accompanied by reduced costs, better time performance and increased profitability.

OSHA was widely criticized in its early years for confusing, burdensome regulations. A good deal of the early conflict came about because of arbitrary and inconsistent enforcement during OSHA's early years. In addition, businesses were expected to retrofit guards and other safety devices on existing equipment and to

implement other hazard controls, often at considerable expense, to bring them in line with then-current best safety practices. Other requirements, such as mandated training, communication, and extensive documentation were seen as even more difficult and expensive.

1.2 Objective:

- To ensure that UMP complied with OSH 1994
- To recommend process of the risk assessment of hazards.

1.3 Scope:

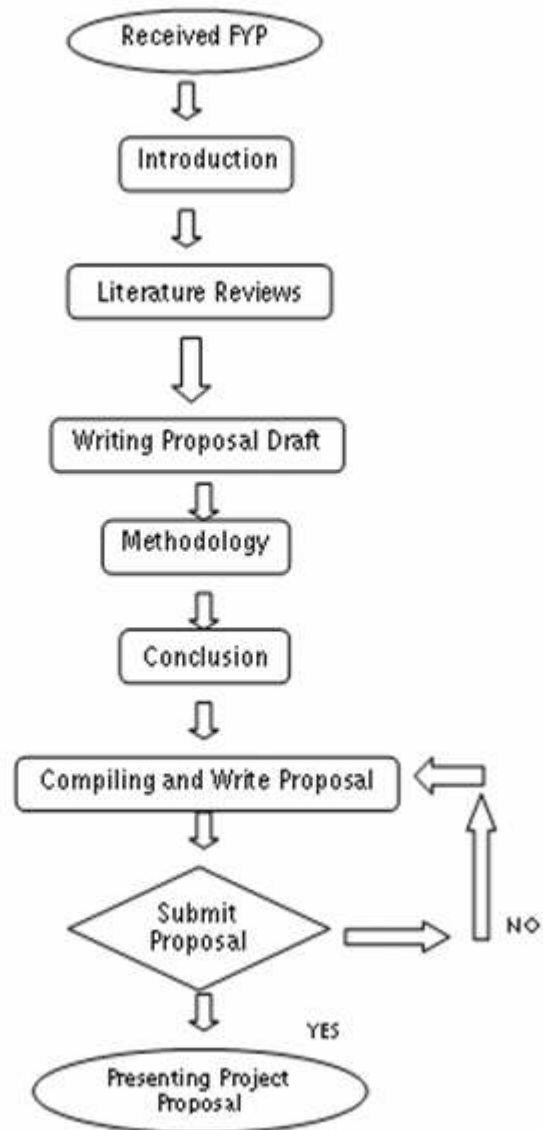
- Investigate about management of OSH in UMP
- Interview person who conduct in UMP.

1.4 Problem statements:

According to industrial accident statistic from SOCSO, the rate of fatal accident are still not satisfying and be categorized as still high if compare to others countries. Since the introduction of OSHA 1994, but it still has not been credible improvement.

Due to this scenario, this act must apply since in school and university. It is important to regularly review the steps, especially if there are changes in the work environment, introduction of few technology or change standard. The act could be utilized in formulating a more conducive in study and working environment and condition at workplace and hopefully the number of accident could be minimized.

1.5 Flow Chart



CHAPTER 2

LITERATURE REVIEW

2.1 Occupational Safety & Health Act 1994

The introduction of a comprehensive Occupational Safety and Health Act (OSHA) 1994 was in response to the need to cover a wider employee base and newer hazards introduced in the workplace. Developed countries such as Japan had enacted such legislation in 1972, United Kingdom in 1974 (the Health and Safety At Work Act 1974), United State of America in 1970 (the Occupational Health & Safety Act 1970) and in Sweden and Norway, the Act was called Internal Control Regulation. The OSHA 1994 is enforced by the Department of Occupational Safety and Health (DOSH) (previously known as Factory and Machinery Department. The name was changed to reflect changes in coverage) under the Ministry of Human Resources.

The Act was derived from the philosophy of the Roben's Commission and Health & Safety At Work Act 1974 in UK, emphasizing on self-regulation and duties of employer, employee and designer/manufacturer. The employer's duties include the provision of a safe system of work, training, maintenance of work environment and arrangement for minimizing the risks at low as reasonably practicable. In short, the responsibility on OSH is made to rest on those who create the risks (employers) and those who work with the risk (employees).

The Act is referred as a reflexive-type of Act which was less prescriptive, cover all workers except those in armed forces and those who work aboard ship (which were covered by other legislations). The Act also emphasis on duties of care by individual thus empowering the participation of all person in OSH.

Under the OSH Act 1994, National Council for Occupational Safety and Health was established. This Council comprised of 15 council members with tripartite representation from Government, employers, employees and OSH professionals (with at least one woman member). The legislation also contains provision for formulating regulations and Code of Practices (COPs), which indicates “what should be done” and thus assist the employer to comply with the Act.

A series of regulations have been introduced under OSHA 1994. The emphasis of these regulations has been on establishing mechanism to implement OSH in workplaces. Workplaces with five or more workers are required to formulate a Safety and Health Policy. The Safety and Health Committee Regulations 1996 requires establishments with 40 workers and above to establish a safety and health committee. The committee is required to meet at least once in every three months, with the functions to identify hazards at the workplace, institute control measures, investigate incident and conducting audit.

In terms of representation in the committee, workplace with less than 100 workers will need to have at least two representatives each for workers and management respectively. However, workplaces with more than 100 workers will need to have a minimum of four representatives each for workers and management. The Safety and Health Officer Regulations provide for specific industries to have a Safety and Health Officer (SHO). A SHO is an individual who has attended training in National Institute of Occupational Safety and Health (NIOSH) or other accredited training bodies and has passed the examination conducted by NIOSH and registered with DOSH.

The Control of Industrial Major Accident Hazards (CIMAH) Regulations 1996 was enacted in response indirectly to the Bhopal incident in India in 1984 and the Sungai Buluh firecracker factory tragedy in Malaysia which has killed 23 workers in 1992.

The Classification, Packaging and Labeling (CPL) Regulations 1997 and Use and Standard of Exposure of Chemical Hazardous to Health (USECHH) Regulations 2000 were specific for controlling chemicals at the workplace. The CPL regulation required proper packaging and labeling of chemicals by the supplier including the label

giving risk phrases. The USECHH regulation includes the provision of chemical health risk assessor (CHRA), occupational health doctor (OHD) and industrial hygiene technician to perform their respective roles in assessing the health risk from chemical exposure. In particular, the chemical health risk assessment includes having a list of all chemicals, assessing workers exposure to these risks, deciding on acceptability of risks and control measures that exist are reviewed. If risks are found to be unacceptable, action needs to be taken. This regulation leads to increased training needs, which was offered by NIOSH. Guideline on Chemical Health Risk Assessment has also been issued.

Table 2 showed the regulations made under OSHA 1994. Guidelines and Code of Practices which have been issued by DOSH under the OSHA 1994 are shown in **Table 3**.

Table 1. The regulation made under OSHA 1994.

Regulation	Year
Employer's Safety and Health General Policy Statement (Exception)	1995
Control of Industrial Major Accident Hazards	1996
Safety and Health Committee	1996
Classification, Packaging, and Labelling of Hazardous Chemicals	1997
Safety and Health Officer	1997
Safety and Health Officer Order	1997
Prohibition of Use of Substance	1999
Use and Standards of Exposure of Chemicals Hazardous to Health	2000

Source: OSHA, 1994.

Table 2. Guidelines and Code of Practices made under OSHA 1994

Regulation	Year
Guidelines for Public Safety and Health at Construction Site	1994
Guidelines on First Aid Facilities in the Workplace	1996
Guidelines on Occupational Safety and Health in the Office	1996
Guidelines for the Classification of Hazardous Chemicals	1997
Guidelines for Labelling of Hazardous Chemicals	1997
Guidelines for the Formulation of a Chemical Safety Data Sheet	1997
Guidelines on Control of Exposure to Dust in the Wood Processing Industry	1998
Guidelines on Safety and Health in the Wood Processing Industry	1998
Guidelines on Reduction of Exposure to Noise in the Wood Processing Industry	1998
Guidelines on Occupational Safety and Health in Tunnel Construction	1998
Guidelines for the Preparation of Demonstration of Safe Operation Document (Storage of Liquified Petroleum Gas in Cylinder)	2001
Guidelines on Medical Surveillance	2001
Approved Code of Practice for Safe Working in a Confined Space	2001
Approved Code of Practice on HIV/AIDS in Workplace.	2001
Guidance for the Prevention of Stress and Violence at the Workplace	2001
Code of Practice on Prevention and Management of HIV/AIDS at the Workplace	2001
Guidelines on Occupational Safety and Health for Standing at Work	2002
Guidelines on Occupational Safety and Health in Agriculture	2002

Source: DOSH, Malaysia, 2002.

2.1.1 Occupational Safety and Health Act 1994

The Occupational Safety and Health Act came into force in February 1994. It covers all economic sectors, including the public services and statutory authorities, except those subjected to the Merchant Shipping Ordinance and the armed forces.

The Act and the accompanying regulations oblige employers to provide and maintain safe plant, work systems, workplaces and working environments. Employers are also required to provide information, instruction, training and supervision to enable employees to perform the work in a safe manner and without risks to health.

The systems and procedures focus on the following areas of concern:

- safety and health training
- safe systems of work
- environmental control
- safe workplaces
- machine guarding
- housekeeping
- safe plant and equipment
- noise control
- dust control
- safe use of toxic materials
- internal communication and participation
- utilization of safety committees
- fire safety and prevention
- medical facilities and welfare
- accident reporting and investigations
- emergency procedures and monitoring
- radiation safety.

It is the obligation of the employer to establish a Occupational Safety and Health Committee where there are more than 40 employees. The committee's main function is to review the measures and investigate any matters arising. There must always be consultation between the employer and the committee on safety and health matters. It is important to note that approximately 20% of the employers in the formal sector have less than 40 employees in their enterprise and, therefore, are exempted from this obligation.

A competent safety and health officer has to be appointed in industries which have been gazetted by the Minister. The safety and health officer's job is to ensure compliance with the Act and promote safe conduct of work. Medical surveillance is also mandatory in industries where work may pose risks to health of workers.

It is the duty of an employer to notify the nearest occupational safety and health office of any accident, dangerous occurrence, occupational poisoning or disease which has occurred or is likely to occur at the workplace. Doctors are also required to report cases of occupational poisoning or occupational diseases.

The Act also provides for the establishment of the tripartite National Council for Occupational Safety and Health, which may carry out investigations on health and safety issues over a wide range of areas.

2.2 Regulation

2.4.1 OCCUPATIONAL SAFETY AND HEALTH ACT 1994

In part XIV of OSHA 1994 Act shows the regulation of this act. It describe in Section 66: Regulations:

(1) The Minister may make regulations for or with respect to the safety, health and welfare of persons at work in order to achieve the objects of this Act.

(2) In particular and without prejudice to the generality of subsection (1), such regulations may-

(a) regulate or prohibit-

(i) the manufacture, supply or use of any plant;

(ii) the manufacture, supply, storage, transport or use of any substance; and

(iii) the carrying on of any process or the carrying out of any operation;

(b) prescribe the requirements with respect to the design, construction, guarding, sitting, installation, commissioning, examination, repair, maintenance, alteration, adjustment, dismantling, testing, marking or inspection of any plant;

(c) prescribe the requirements with respect to the examination, testing, analysis, labeling or marking of any substance;

(d) prescribe the times and the manner in which employers or other specified persons are required to examine, test, analyze, label or mark any substance;

(e) prescribe the requirements to abstain from eating, drinking or smoking in any circumstances involving risk of absorption of any substance or risk of injury or poisoning arising out of the use of any substance;

(f) prescribe the requirements with respect to the instruction, training and supervision of persons at work;

- (g) prescribe the procedure for employers to notify any accident, dangerous occurrence, occupational poisoning or occupational disease;*
- (h) prescribe the arrangements to be made with respect to the taking of any action or precaution to avoid, or in the event of, any accident or dangerous occurrence;*
- (i) prohibit or require the taking of any action in the event of any accident or dangerous occurrence;*
- (j) prescribe the requirements with respect to the provision and use in specified circumstances of protective clothing or equipment and rescue equipment;*
- (k) prescribe the standards in relation to the use of, including standards of exposure to, any physical, biological, chemical or psychological hazard;*
- (l) regulate and require the monitoring by employers or occupiers of conditions at a place of work including the health of their employees;*
- (m) secure the provision of adequate welfare facilities by employers for persons at work;*
- (n) require the employers to keep and preserve records and other documents;*
- (o) prescribe the composition, powers, functions and procedures of safety and health committees and regulate the election or appointment of members of the committees and other related matters;*
- (p) prescribe the manner of holding inquiries under section 33 and of hearing appeals under section 36 or 50;*
- (q) prescribe the fees payable or chargeable for doing any act or providing any service for the purposes of this Act or any regulation made there under;*
- (r) prescribe the offences which may be compounded and the method and procedure to be complied with; (s) prescribe the requirements for engaging a medical officer and the procedures for the registration of the medical officer;*